

## TMA4195 Mathematical Modeling. Grades and Comments on the 2013 project.

Group	Studentno.	Comments	Grades
1	707750, 708177, 716084, 724019, 738515	Worked on projects 2 and 3. Excellent work. Very nice report. Project 2 is treated very thoroughly and even includes the computation of the analytical solution for nonlinear relative permeability. Nice slides, very nice presentation.	96
2	732341, 628721, 724041, 732331, 708327	Worked on project 2. The presentation is not always very clear and contains some mistakes. You could have started with another project or developed more this one. Very nice slides, ok presentation.	71
3	724037, 723988, 723999, 736944, 723997	Worked on projects 1 and 3. Very good work, especially in project 3. In project 3, there are some unclear parts but also an interesting study of heterogeneity. Nice slides, very nice presentation.	87
4	707765, 715778, 716298, 712735, 715741	Worked on projects 2 and 3. Excellent work. Comprehensive answers in project 2 and nice analysis in project 3 where you even handle the case where the permeability depends on $x$ . Nice slides and presentation.	90
5	722393, 704818, 715806, 715733, 715760	Worked on projects 1 and 2. Very good work. Some mistakes in the analytical part in problem 1 but nice numerical results. Nice slides and presentation.	85
6	746921, 693191, 724020, 724051, 724016	Worked on project 1. Very good work. Nice treatment of different well configurations in 1c and interesting analysis of 2d radial case. Nice slides, very nice presentation.	87
7	724009, 698998, 724459, 724003, 723984	Worked on problem 1 and 2. Good work. Nice computation of total water production in 2. Numerical experiments are not presented in 1. Nice slides, ok presentation.	80
8	746617, 724026, 746627, 745782, 751650	Worked on problem 1. Good work. It contains a detailed analytical solution but lacks numerical results. Nice slides, very nice presentation (voted best presentation)	85
9	751641, 724018, 722291, 721500, 723989	Worked on problem 2 and 3. Excellent work and well-written report. Nice derivation of an analytical solution for nonlinear relative permeabilities. Comprehensive work in problem 3 where the group has implemented its own finite volume scheme and also used MRST. Nice slides and presentation.	95
10	715738, 715745, 715764, 715798, 708173	Worked on project 1. In 1a, the group looks at solution on the half line with a well located at infinity. This approach is not clearly justified. The numerical part could have been longer. Ok presentation and slides.	74
11	715079, 715081, 715793, 715789, 715747	Worked on the three problems. The analytical parts could have been done more rigorously and the numerical experiments in 1 and 3 are not very convincing. Nice computation of transmissibilities in 3. Very nice slides and presentation (voted best presentation).	80
12	732353, 732321, 715732, 715983, 708194	Worked on project 2. Very good work. Interesting attempt to solve the coupled pressure/saturation equations in several dimensions. Ok presentation and slides.	83